

Efficacy of ayurveda against oral submucous fibrosis - a case study

Abstract

Oral Submucous Fibrosis is on a steady rise due to excessive use of betel nut chewing and tobacco consumption in various forms. Despite habit corrections, the fibrosis stays refractory and grossly hampers the quality of life. Young Males being the most affected group, this condition has more reflects adversities beyond one's individual health. Ayurveda interventions show significant improvements in many symptoms. Gandush is such a local Panchakarma therapy.

Keywords: oral submucous fibrosis, ayurveda, gandush, berberis

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Introduction

Ayurveda is the oldest and pioneer health wisdom¹ and highlighted the concept of specialization ab initio, as reflects from the mention of the eight clinical branches.² Shalaky Tantra has always had a very specific array and is keeping on enhancing its relevance day by day. With the advent of Tobacco abuse in many forms, newer health hazards as Oral Sub Mucous Fibrosis (OSMF) came up, especially observed in the persons with a history of tobacco chewing in some form, and smoking.³ It can in general be associated to the *Sarvasara Mukha Roga* with *Kapha Vata Dosha* as predominant *Tridosha* vitiation.

OSMF, first reported in early 1950s, is a collagen deposition disorder disturbing the patients' quality of life and can even lead to cancer. It is a disease with insidious onset, characterized by fibrosis. This condition is the commonest in the Indians.⁴ People with habits of chewing betel nuts, and consuming various tobacco products are at more risk of developing this disease.³ Prevalence rate of disease is 2% and transformation rate to malignancy is around 5%. Initial stages of the disease are reversible with cessation of habits and oral exercises. The commonest age group is 20 to 40 years. Genetic predisposition, autoimmunity, deficiencies of Various vitamins and minerals are also suspected in the pathogenesis of OSMF. The disease initiates with burning sensation, acute inflammation, and mucosal disintegration, eventually worsening into dry mouth, chronicity with fibrosis after submission of acute symptoms.⁵

Shalaky Tantra is one of the specialties of Ayurveda that deals with the diseases of the supraclavicular region.⁶ The *Mukha* i.e. oral cavity is gateway to human body thence diseases of this part should be dealt carefully. *Mukhagata vyadhis* have been described by *Acharya Sushruta* in *Nidana Sthana* chapter 16; *Acharya Sushruta* has described 65 *Mukhagata rogas* and classified them into seven subsites i.e. *Oshtha, Danta, Dantamulagata, Jihva, Talu, Kantha and Sarvasara*.⁷ OSMF can be included in *Sarvasara Rogas*. *Vagbhat* at many contexts mentions many features relatable to OSMF as ulceration, restricted mouth opening, oral burning sensation oral dryness and fibrosis etc.⁸ The treatment modalities for the initial stages include discontinuation of addictive habits, nutritional support, antioxidants, physiotherapy, immunomodulatory drugs, local infiltration of steroids, hyaluronidase, human placental extract etc⁹ whereas the advanced cases warrant scalpel intervention.¹⁰ Ayurveda which is holistic science opens new

horizon this disease. Efficacy of *Gandush* has been studied in this case study. *Gandush* strengthens oral mucosa and hence promotes easy penetration of the drug, hypothesised to mitigate *Vata Kapha* vitiation to reverse the clinical picture of OSMF.

Case summary

A 60-year-old female patient approached the NIA hospital, Jaipur with complaints of reduced mouth opening, oral burning sensation with pain, along with intolerance to spicy food for two years. The Patient had asymptomatic deficiency of vitamin B-12; she was on analgesics and multivitamin for these conditions. She had good oral hygiene, pale and had a lean physical structure with no history of tobacco consumption. Routine investigations like Hb, TLC, DLC, ESR, FBS were within the normal range however the level of vitamin B -12 was reduced.

Examination

There was formation of bilateral fibrous bands in the lateral border of tongue and buccal mucosa. The mouth opening / Inter Incisal Distance was 33.6 mm as measured by Vernier Calliper. The symptoms were recorded during history taking on a specially designed Client Record Form.

Treatment

Darvyadi Kwath contains *Daruharidra, Twak, Nimba, Rasanjana and Indrayava* in equal parts, classically prepared by boiling the ingredients in 16 times water, reduced to a quarter, and consumed within a day.¹²

The Patient was given *Darvyadi Kwath* 20 ml twice a day for gargling for two months with fortnightly follow ups. The patient was advised to fill her mouth with lukewarm *Darvyadi Kwath* for a period till there is *Kaphapurnasyata* (mouth filled with secretions), *Ghranasrava & Akshisrava* (watery discharge from nose and eyes), followed by spitting out the oil and secretions.

Assessment criteria

Symptoms were reviewed and Inter incisal distance (IID) was measured with Vernier Calliper by taking the distance between the mesial angles of the upper and lower central incisors.

Signs and symptoms

Burning sensation	Score
No Mukhadaha (Burning sensation in mouth)	0
On taking spicy food	1
On taking food	2
	4

Colour of Oral mucosa	Score
Pink normal	0
Light pink	1
Pale white	2
Blanched white	3

Ulceration in mouth	Score
Nil	0
Mild	1
Moderate	2
Severe	3

Fibrous bands on palpation	Score
No fibrous bands	0
One or two solitary fibrous bands	1
Bands felt almost on entire surface	2
Adherent fibrous bands producing rigidity of Mucosa	3

Inter Incisal distance in mm	Score
41 or above	0
37-40	1
33-36	2
29-32	3
25-28	4
21-24	5
17-20	6
13-16	7

Results

There was complete relief in pain of the mouth, burning sensation and intolerance to spicy food there was a little improvement in opening of mouth. The mouth opening was 31 mm and there was reduction in fibrous band masses (Table 1).

Table 1 The mouth opening was 31 mm and there was reduction in fibrous band masses

S No	Symptom	Before treatment	After treatment
1	Inter Incisal distance	32mm	31mm
2	Fibrous Bands on Palpation	3	2
3	Ulceration in mouth	3	1
4	Colour of Oral mucosa	2	1
5	Burning Sensation	3	0
6	Intolerance to spicy food	3	0
7	Pain	2	1

Discussion

Though there are many treatment modalities in the contemporary science but they are not effective and have many side effects too. Ayurveda is holistic science and free from side effects. The treatment with *Gandush* causes strengthening of the oral mucosa hence promotes easier and effective penetration of the drugs.

Excessive consumption of Areca nut; having the attributes of Areca Nut as *Sheeta*/cold, *Kashaya* / astringent taste, *Ruksha* / Dryness etc vitiate Vata and diminish Agni. A combined vitiation of *Vata & Kapha* causes hardening / fibrosis, as mentioned by *Charak Samhita*, *Chikitsa Sthana*, chapter 21 with reference to *Visarpa*. That is why the Rasayana & hot potency herbs have a potential to reverse the *Vata-Kapha* predominant pathology of OSMF and thence selected for this study.

The present observations were completed with no reported side effect, convenience of drug tolerance and usage and had significant result against OSMF.

Conclusion

Due to faulty habits as smoking & tobacco chewing, OSMF is on a rise and requires timely, newer interventions as *Gandush* with relevant herbs. The present study hints such an option. Ayurveda works well in chronic ailments and there is no chance of side effect. The study should be carried out in the larger sample to see effectiveness of the drugs. This sample study is being extended into a full-fledged Doctorate study.

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Conflicts of interest

Author declares there are no conflicts of interest.

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